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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) An *in vivo* method of identifying a compound that modulates a transcriptional response to hypoxia in a cell, said method comprising:
contacting a cell, or the extracellular environment of a cell, with a candidate compound;
subjecting the cell to hypoxic conditions; and
assessing a transcriptional response of the cell to the hypoxic conditions, wherein an increase or decrease in the transcriptional response to hypoxia in the cell in the presence of the candidate compound compared to the transcriptional response to hypoxia in a cell in the absence of the candidate compound indicates that the candidate compound modulates the transcriptional response to hypoxia.
2. (Previously Presented) The method of claim 1, wherein the transcriptional response is expression of a reporter gene under the control of a hypoxia-responsive promoter or an endogenous hypoxia-responsive gene.
3. (Previously Presented) The method of claim 2, wherein the reporter gene encodes luciferase, green fluorescent protein, yellow fluorescent protein, or cyano-fluorescent protein.
4. (Currently amended) The method of claim 2, wherein the endogenous gene encodes vascular endothelial growth factor, erythropoietin, heme oxygenase, inducible nitric oxide synthase (iNOS), glucose transporter 1, glucose transporter 3, hexokinase, aldolase A (ALDA), or transferrin.
5. (Previously Presented) The method of claim 1, wherein the cell is a cultured cell.
6. (Currently amended) The method of claim 1, wherein the cell is in a mammal an animal.
7. (Previously Presented) The method of claim 1, wherein the hypoxic conditions to which the cells are exposed induced by deferoxamine or cobalt chloride.
- 8-23. (Cancelled).

24. (New) The method of claim 1, wherein said candidate compound is a small molecule.
25. (New) The method of claim 1, wherein said candidate compound is a peptide.
26. (New) An *in vitro* method of identifying a compound that modulates a transcriptional response to hypoxia in a cell, said method comprising:
providing a candidate compound;
contacting said candidate compound with a cell or the extracellular environment of a cell containing a hypoxia-responsive promoter or an endogenous hypoxia-responsive gene;
subjecting the cell or the extracellular environment to hypoxic conditions; and
assessing a transcriptional response of the cell to the hypoxic conditions, wherein an increase or decrease in the transcriptional response to hypoxia in the cell in the presence of the candidate compound compared to the transcriptional response to hypoxia in a cell in the absence of the candidate compound indicates that the candidate compound modulates the transcriptional response to hypoxia.
27. (New) The method of claim 26, wherein said candidate compound is a peptide.
28. (New) The method of claim 26, wherein the transcriptional response is expression of a reporter gene under the control of a hypoxia-responsive promoter or an endogenous hypoxia-responsive gene.
29. (New) The method of claim 26, wherein the reporter gene encodes luciferase, green fluorescent protein, yellow fluorescent protein, or cyano-fluorescent protein.
30. (New) The method of claim 26, wherein the cell is a cultured cell.
31. (New) The method of claim 26, wherein said candidate compound is a small molecule.